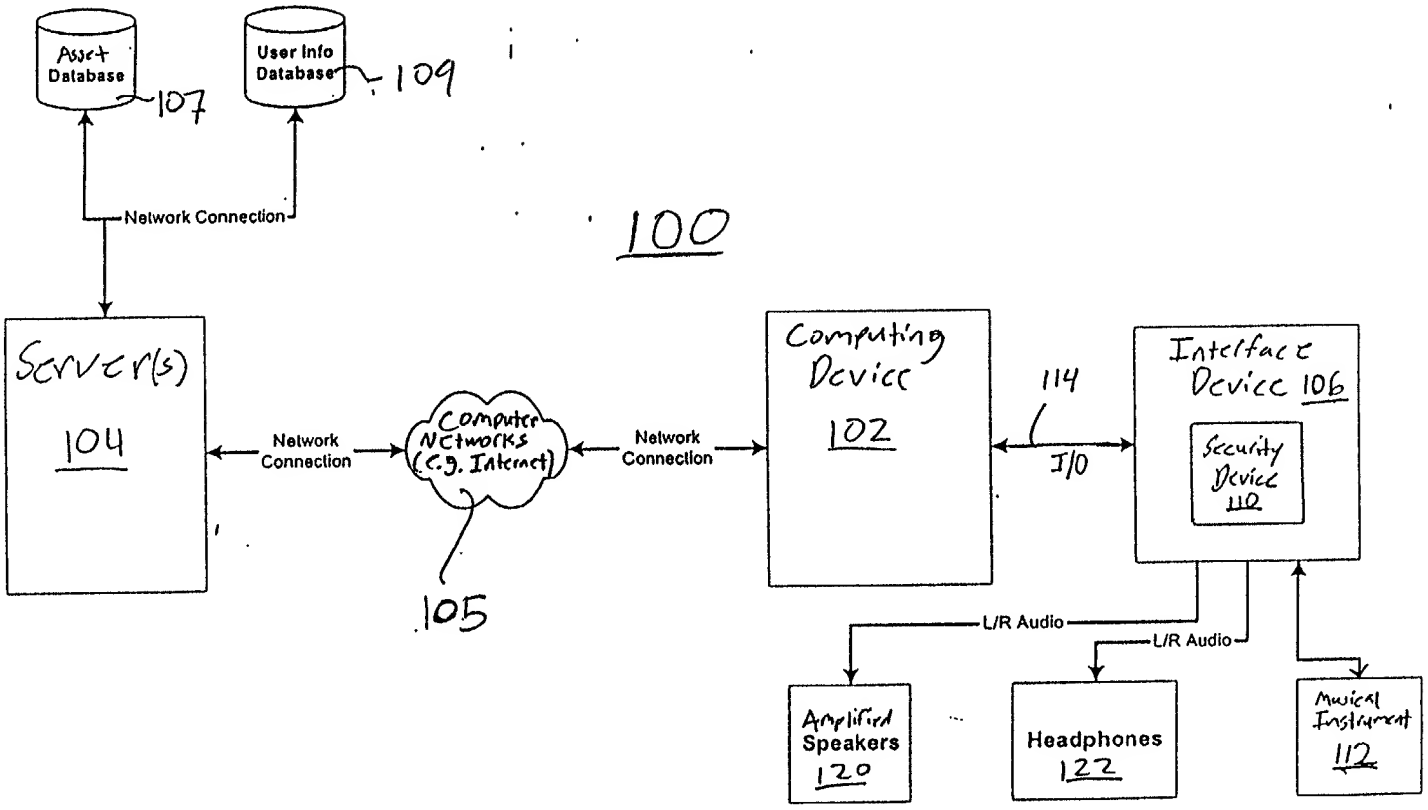
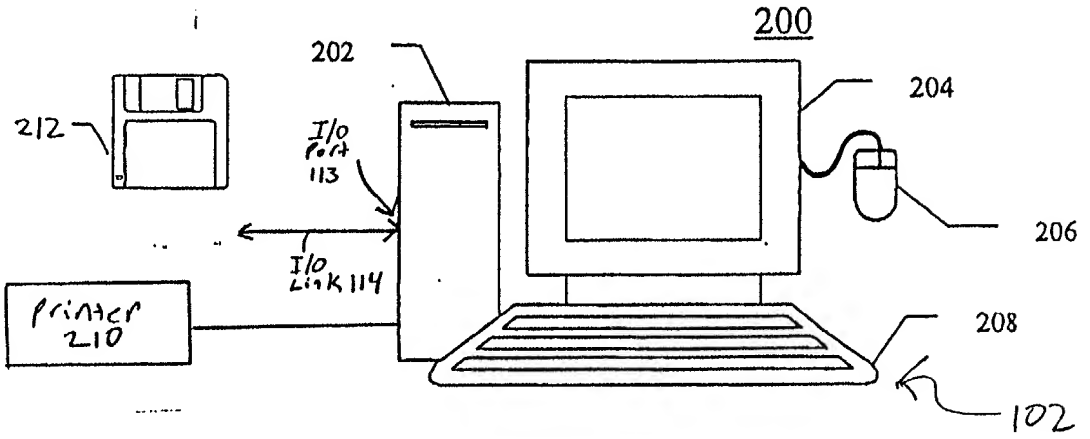

Asset Database
107
User Info Database
109
Network Connection
100
Server(s)
104
Network Connection
Computer Networks (e.g. Internet)
105
Network Connection
Computing Device
102
114
I/O
Interface Device 106
Security Device 110
L/R Audio
L/R Audio
Amplified Speakers 120
Headphones 122
Musical Instrument 112

Figure 1

Figure 2a



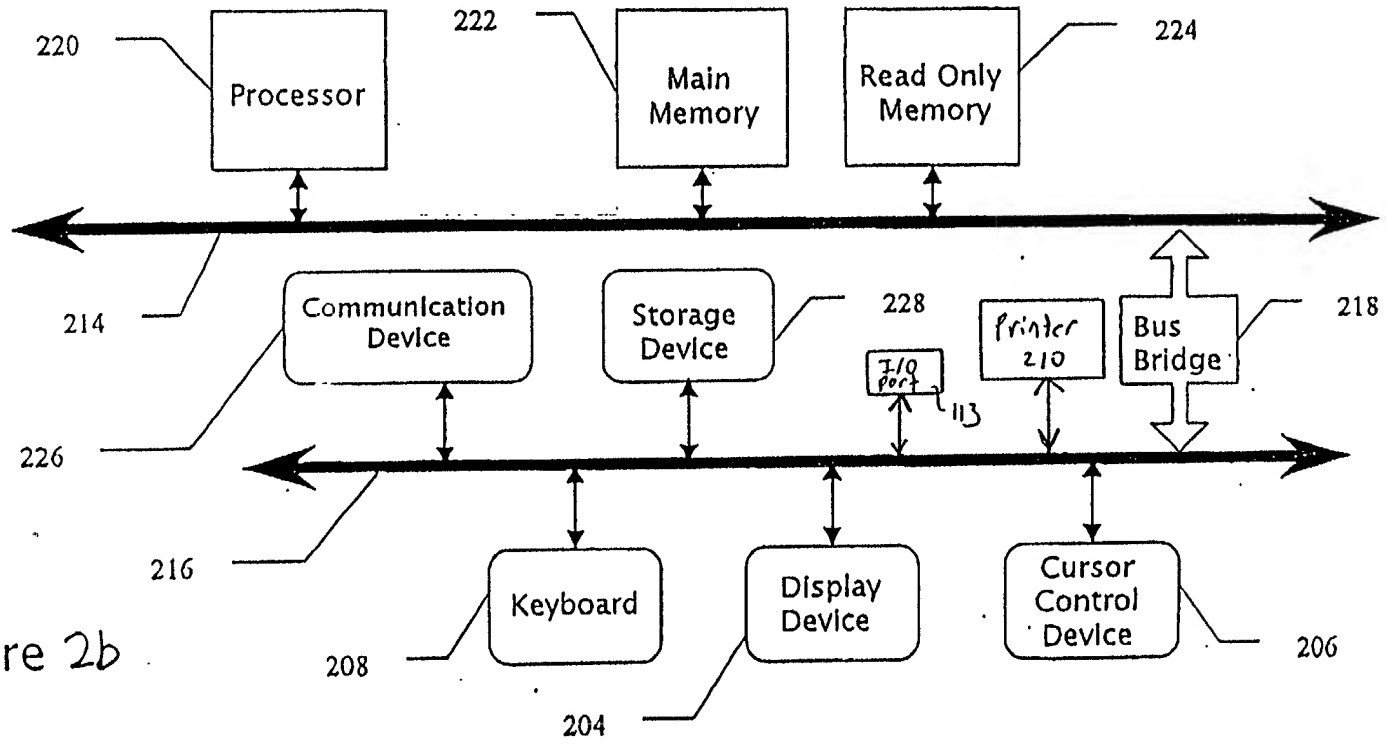
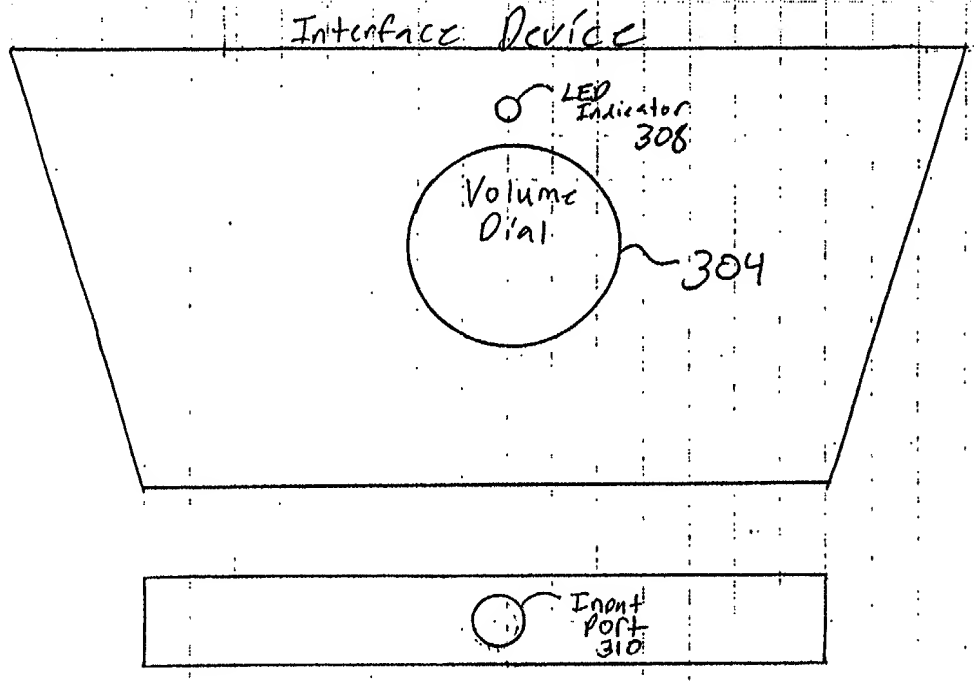


Figure 2b

20070207 2250660

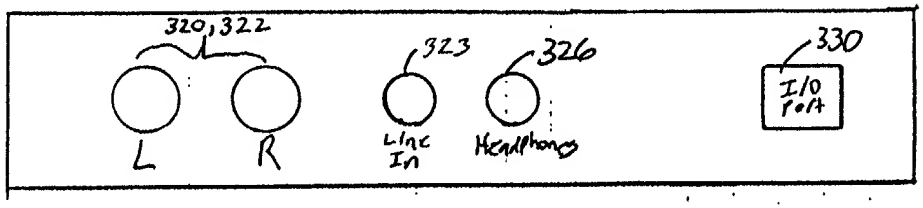


Top View

Figure 3a

Front View

Figure 3b



Back View

Figure 3c

106

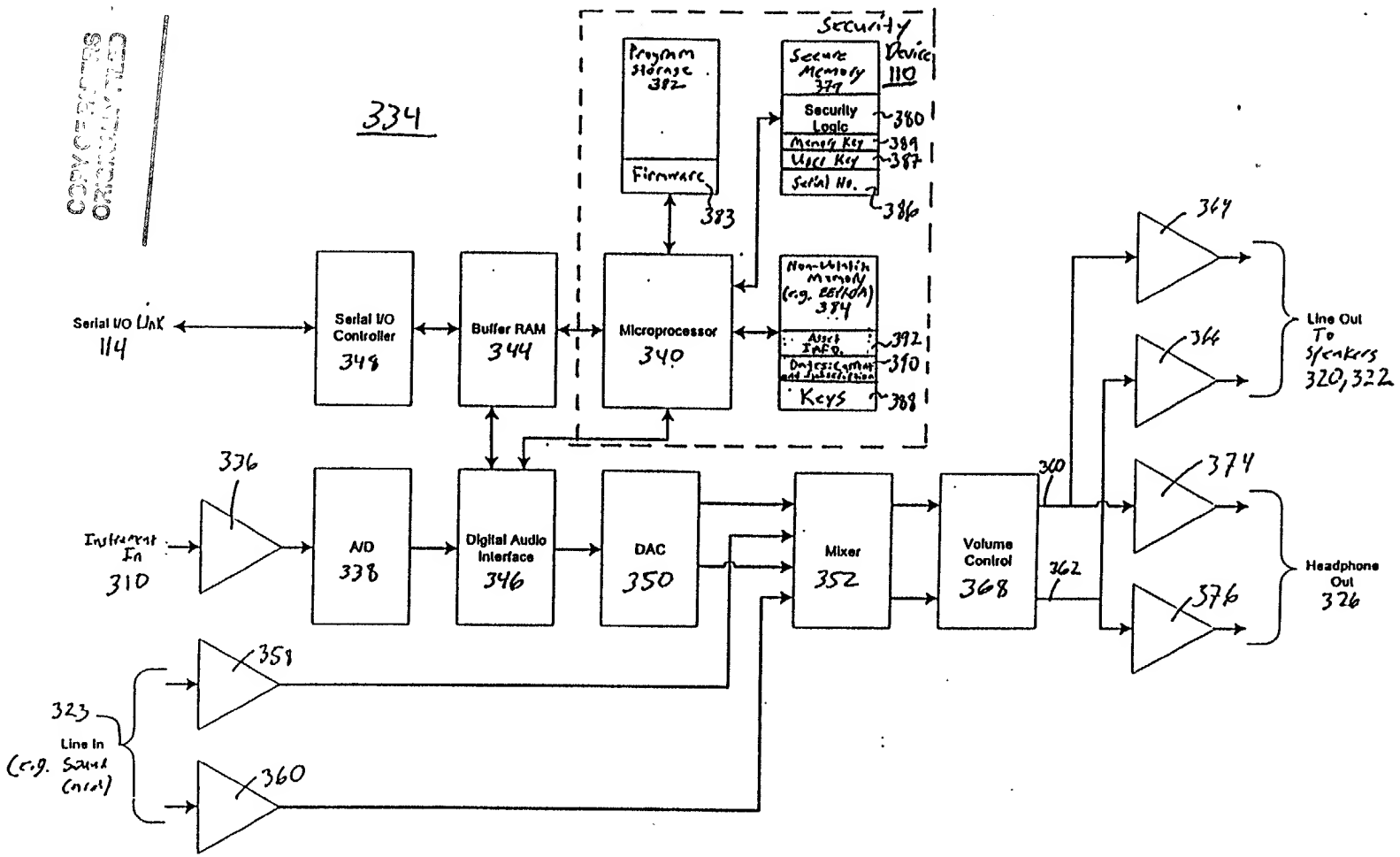

334
Security Device 110
Program Storage 382
Firmware 383
Secure Memory 377
Security Logic 380
Memory Key 389
Unit Key 387
Serial No. 386
Non-Volatile Memory (e.g. EEPROM) 374
Keys 388
Serial I/O Link 114
Serial I/O Controller 348
Buffer RAM 344
Microprocessor 340
Instrument In 310
336
A/D 338
Digital Audio Interface 346
DAC 350
Mixer 352
Volume Control 368
360
362
364
366
374
376
Line Out To Speakers 320, 322
Headphone Out 326
351
323
Line In (e.g. Sound Card)
360

Figure 3d

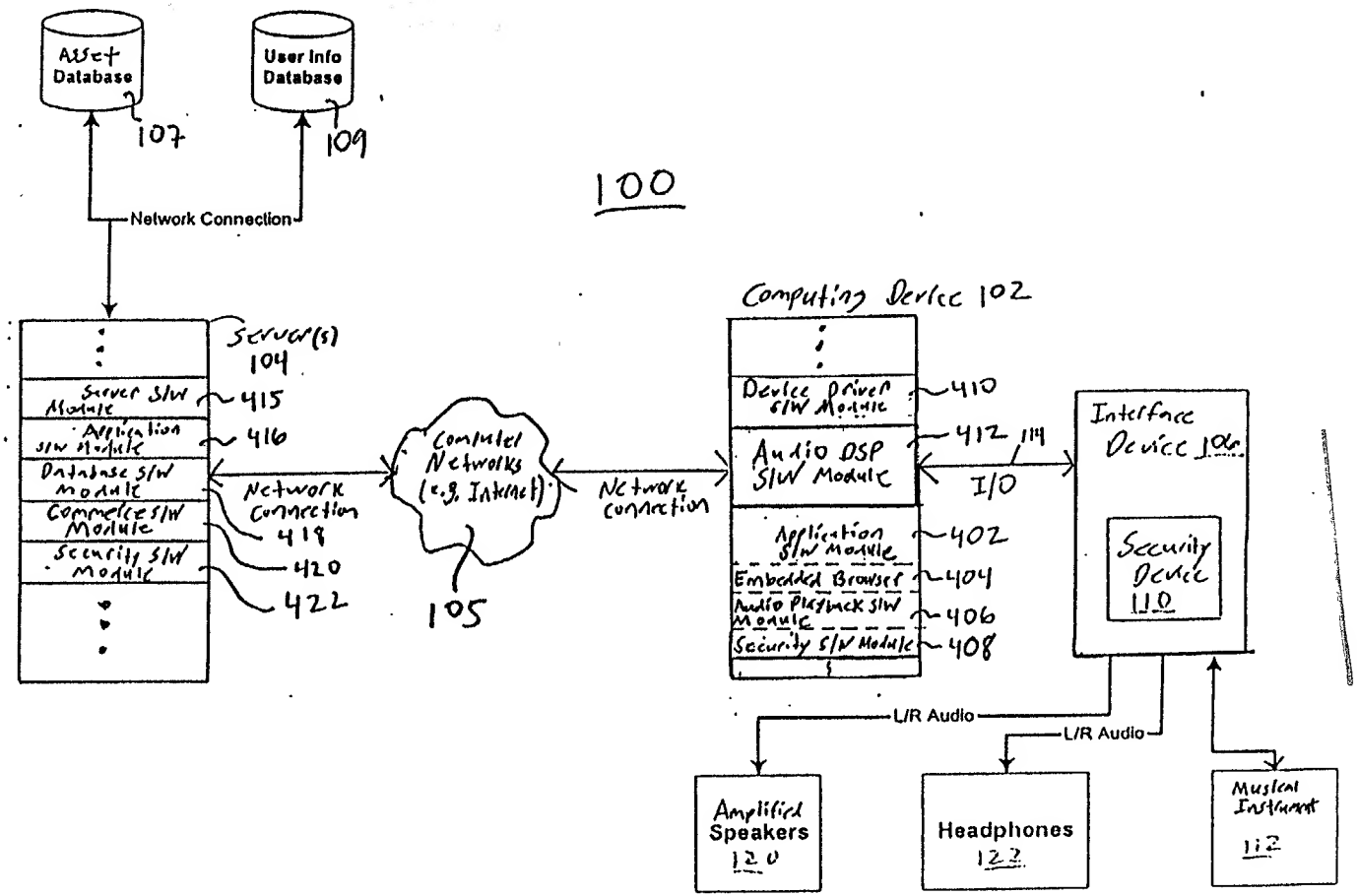

Asset Database
107
User Info Database
109
Network Connection
100
Server(s)
104
Server S/W Module
415
Application S/W Module
416
Database S/W Module
Commerce S/W Module
Security S/W Module
Network Connection
418
420
422
Computer Networks (e.g. Internet)
105
Network Connection
Computing Device 102
Device Driver S/W Module
410
Audio DSP S/W Module
412
114
I/O
Application S/W Module
402
Embedded Browser
404
Audio Playback S/W Module
406
Security S/W Module
408
Interface Device 104
Security Device 110
L/R Audio
L/R Audio
Amplified Speakers 120
Headphones 122
Musical Instrument 112

Figure 4

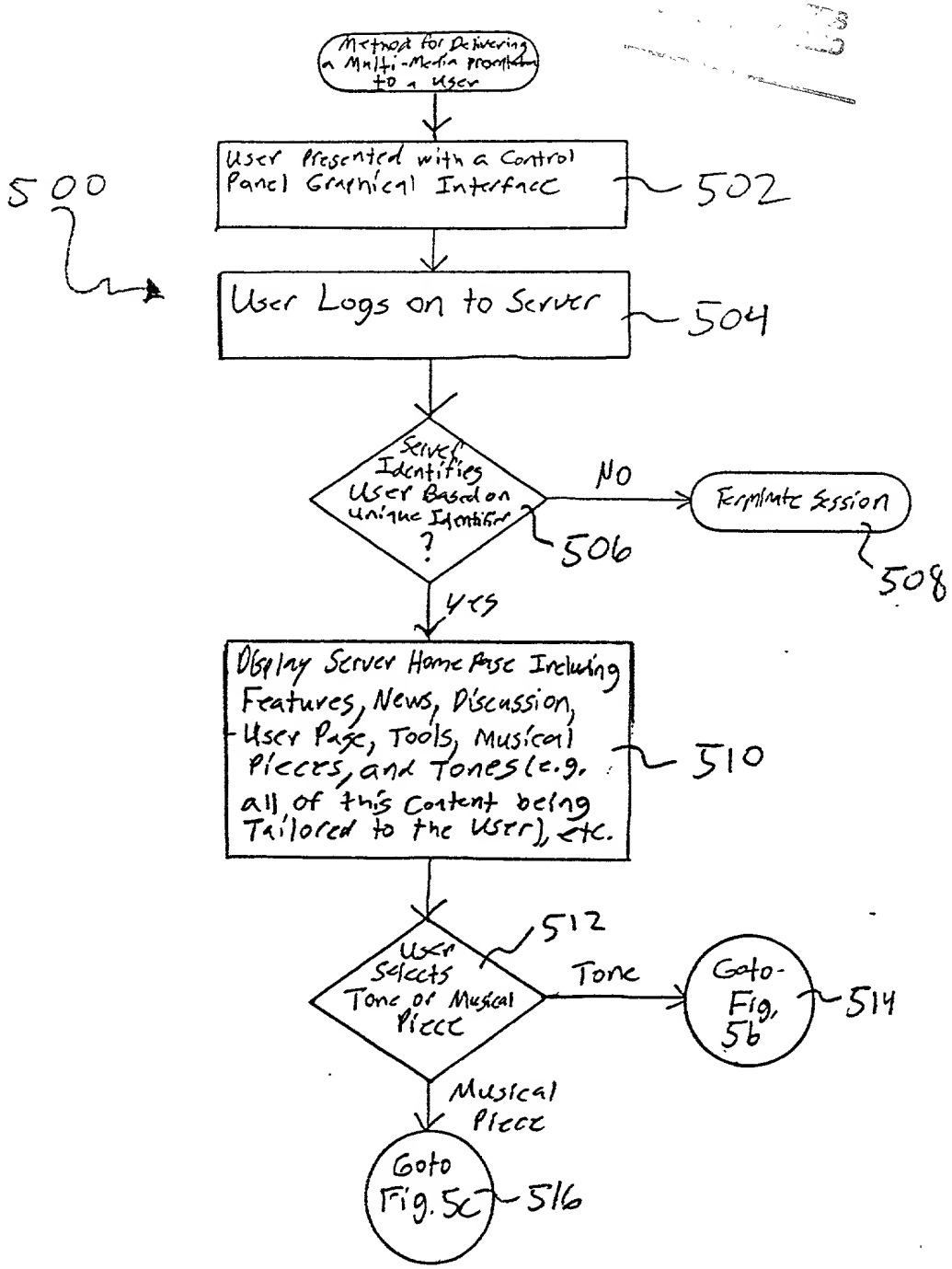

Method for Delivering a Multi-Media promotion to a User
500
User Presented with a Control Panel Graphical Interface
502
User Logs on to Server
504
Server Identifies User Based on unique Identifier ?
506
No
Terminate Session
508
Yes
Display Server Home Page Including Features, News, Discussion, User Page, Tools, Musical Pieces, and Tones (e.g. all of this Content being Tailored to the User), etc.
510
User Selects Tone or Musical Piece
512
Tone
Goto Fig. 5b
514
Musical Piece
Goto Fig. 5c
516

Figure 5a

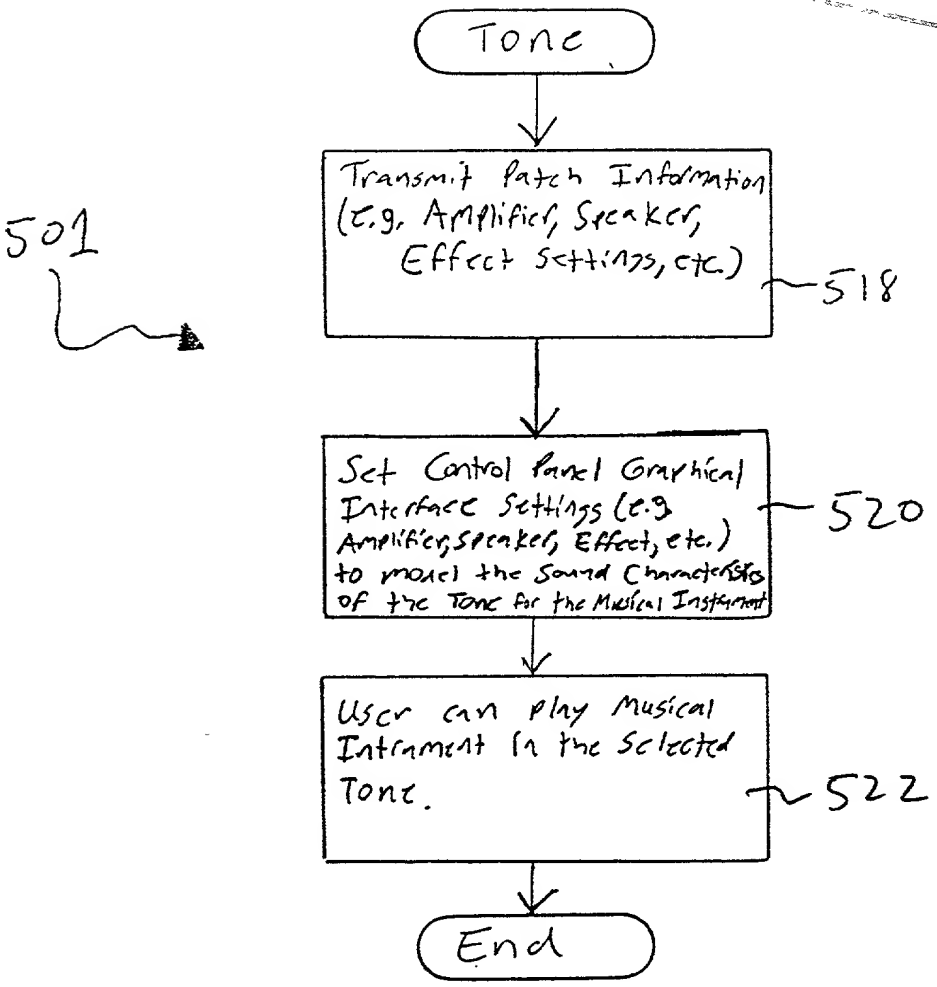

Tone
Transmit Patch Information (e.g. Amplifier, Speaker, Effect settings, etc.)
518
501
Set Control Panel Graphical Interface Settings (e.g. Amplifier, Speaker, Effect, etc.) to model the Sound Characteristics of the Tone for the Musical Instrument
520
User can play Musical Intrament in the Selected Tone.
522
End

Figure 5b

COPY OF PAPERS ORIGINALLY FILED

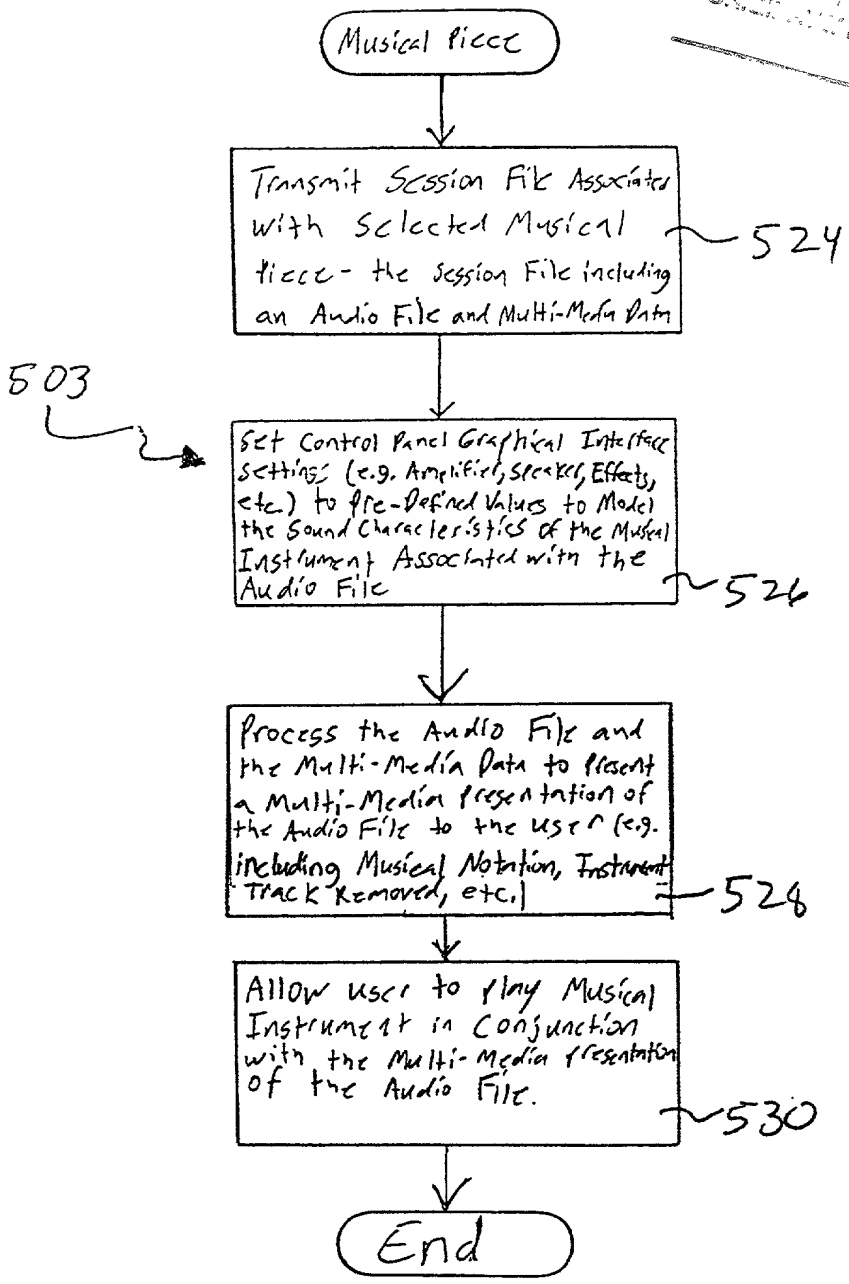


Figure 5C

20020 2650660

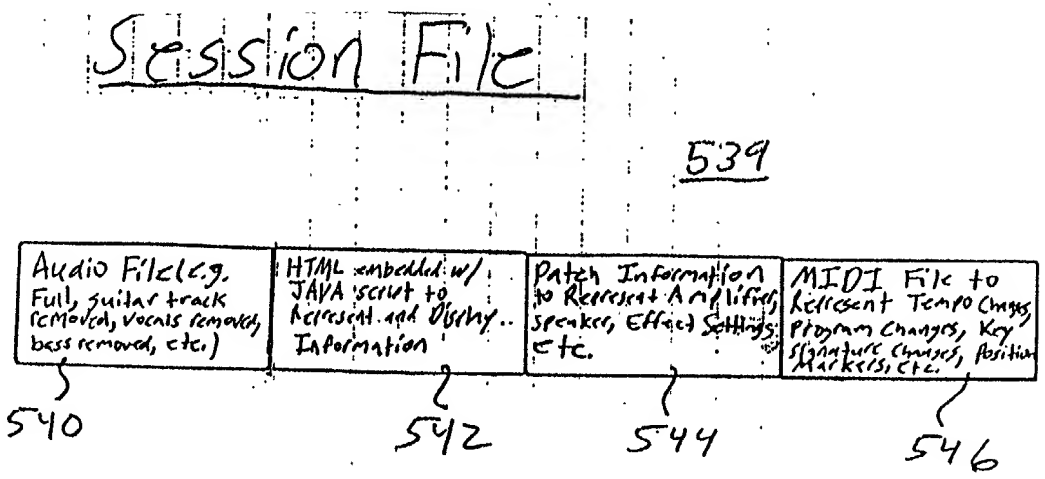


Figure 5d

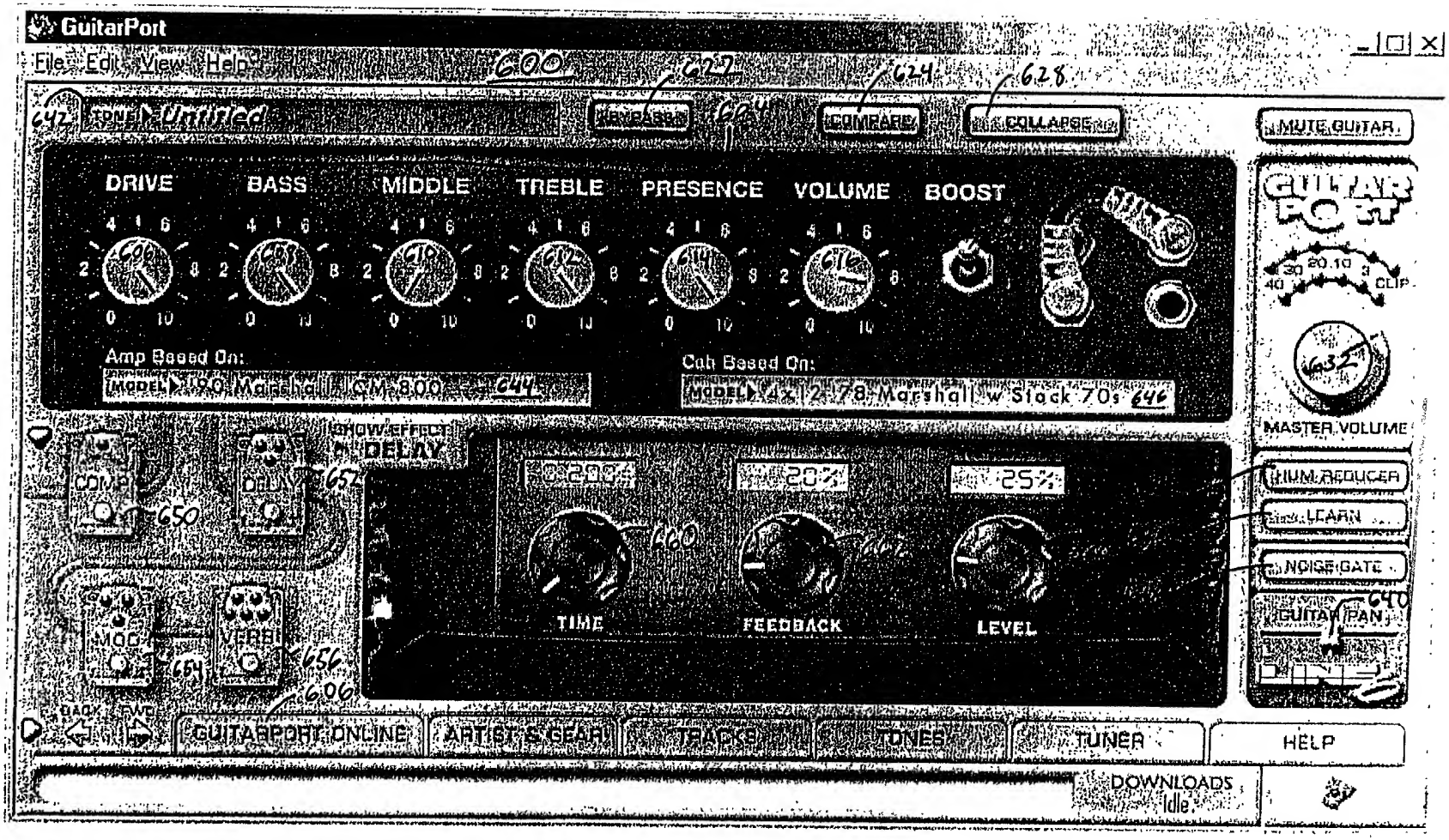

GuitarPort
File Edit View Help
600
627
624
628
642
TONE Untitled
KEY BASS
604
COMPARE
COLLAPSE
MUTE GUITAR
DRIVE
BASS
MIDDLE
TREBLE
PRESENCE
VOLUME
BOOST
GUITAR PORT
CLIP
Amp Based On:
MODEL 80 Marshall CM 800
644
Cab Based On:
MODEL 4x12 78 Marshall w Stack 70s
646
MASTER VOLUME
HUM REDUCER
LEARN
NOISE GATE
GUITAR PAN
640
SHOW EFFECT
DELAY
652
COMP
650
DELAY
MOD
654
VERB
656
606
TIME
FEEDBACK
LEVEL
20%
25%
BACK
FWD
GUITARPORT ONLINE
ARTIST'S GEAR
TRACKS
TONES
TUNER
HELP
DOWNLOADS
Idle

Figure 6a

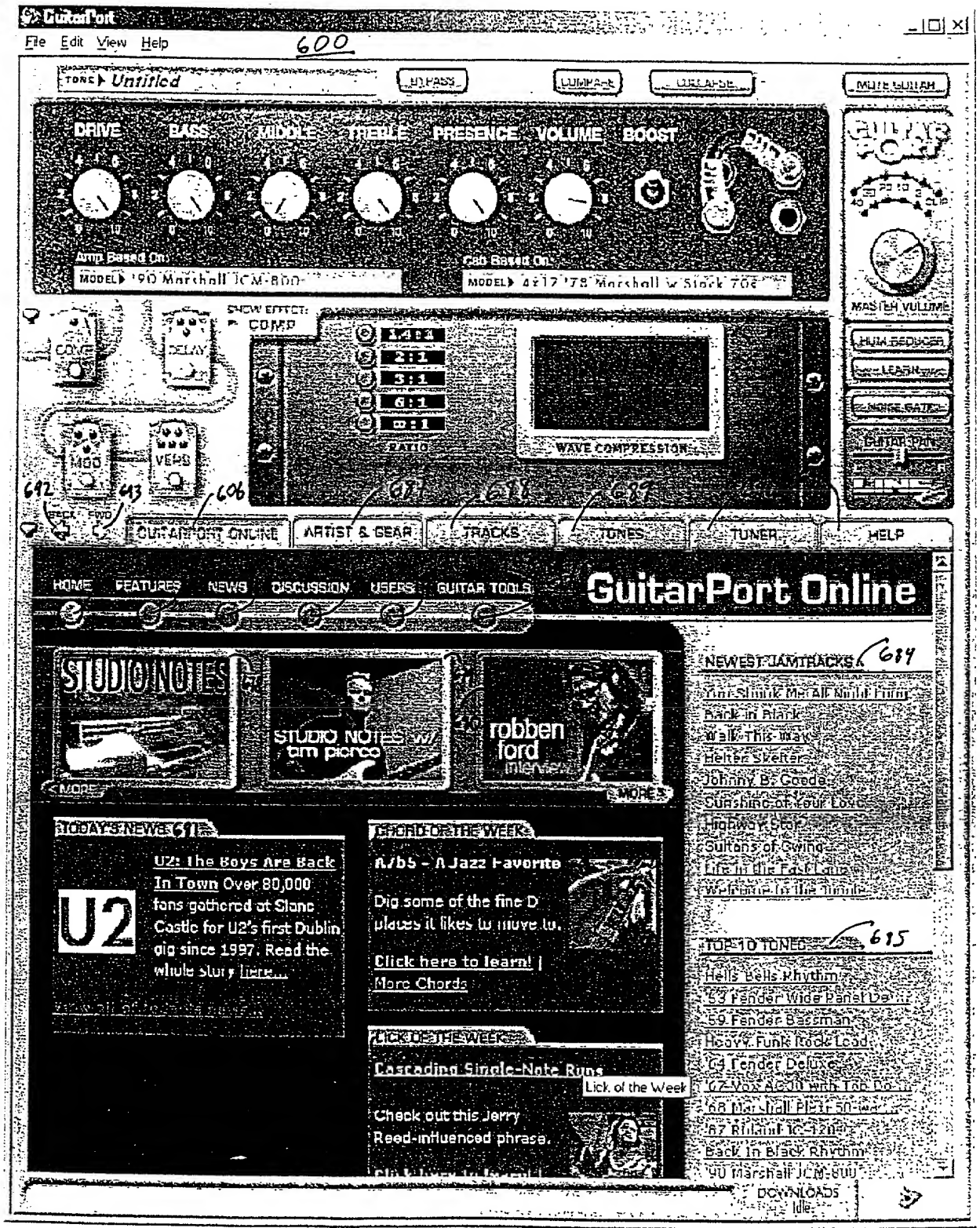

GuitarPort
File Edit View Help
600
TONE Untitled
BYPASS
COMPARE
CREATE
MUTE GUITAR
DRIVE
BASS
MIDDLE
TREBLE
PRESENCE
VOLUME
BOOST
Amp Based On:
MODEL 190 Marshall JCM-800
Cab Based On:
MODEL 4x12 '78 Marshall w Slash 70s
MASTER VOLUME
HUM REDUCER
NOISE GATE
GUITAR PAN
SHOW EFFECT:
COMP
CHORUS
DELAY
MOD
VERB
RATIO
WAVE COMPRESSION
692
693
606
697
698
699
GUITARPORT ONLINE
ARTIST & GEAR
TRACKS
TONES
TUNER
HELP
HOME
FEATURES
NEWS
DISCUSSION
USERS
GUITAR TOOLS
GuitarPort Online
STUDIO NOTES
STUDIO NOTES w/ tim pierce
robben ford interview
MORE
TODAY'S NEWEST 691
U2: The Boys Are Back In Town Over 80,000 fans gathered at Slane Castle for U2's first Dublin gig since 1997. Read the whole story here...
CHORD OF THE WEEK
A/b5 - A Jazz Favorite
Dig some of the fine D places it likes to move to.
Click here to learn! | More Chords
LICK OF THE WEEK
Cascading Single-Note Runs
Lick of the Week
Check out this Jerry Reed-influenced phrase.
NEWEST JAMTRACKS 694
Funk Shuffle Rhythm
Rock in Blank
Walk This Way
Helter Skelter
Johnny B. Goode
Sunshine of Your Love
Highway Star
Sultans of Swing
Life in the Fast Lane
Welcome to the Jungle
TOP 10 TONES 695
Hells Bells Rhythm
'63 Fender Wide Panel Dlx
'59 Fender Bassman
Heavy Funk Rock Lead
'64 Fender Deluxe
'67 Vox AC30 with Top Bo
'68 Marshall Plexi 50-Wa
'87 Rhythm JC-120
Back In Black Rhythm
'90 Marshall JCM-800
DOWNLOADS
Idle

Figure 6b

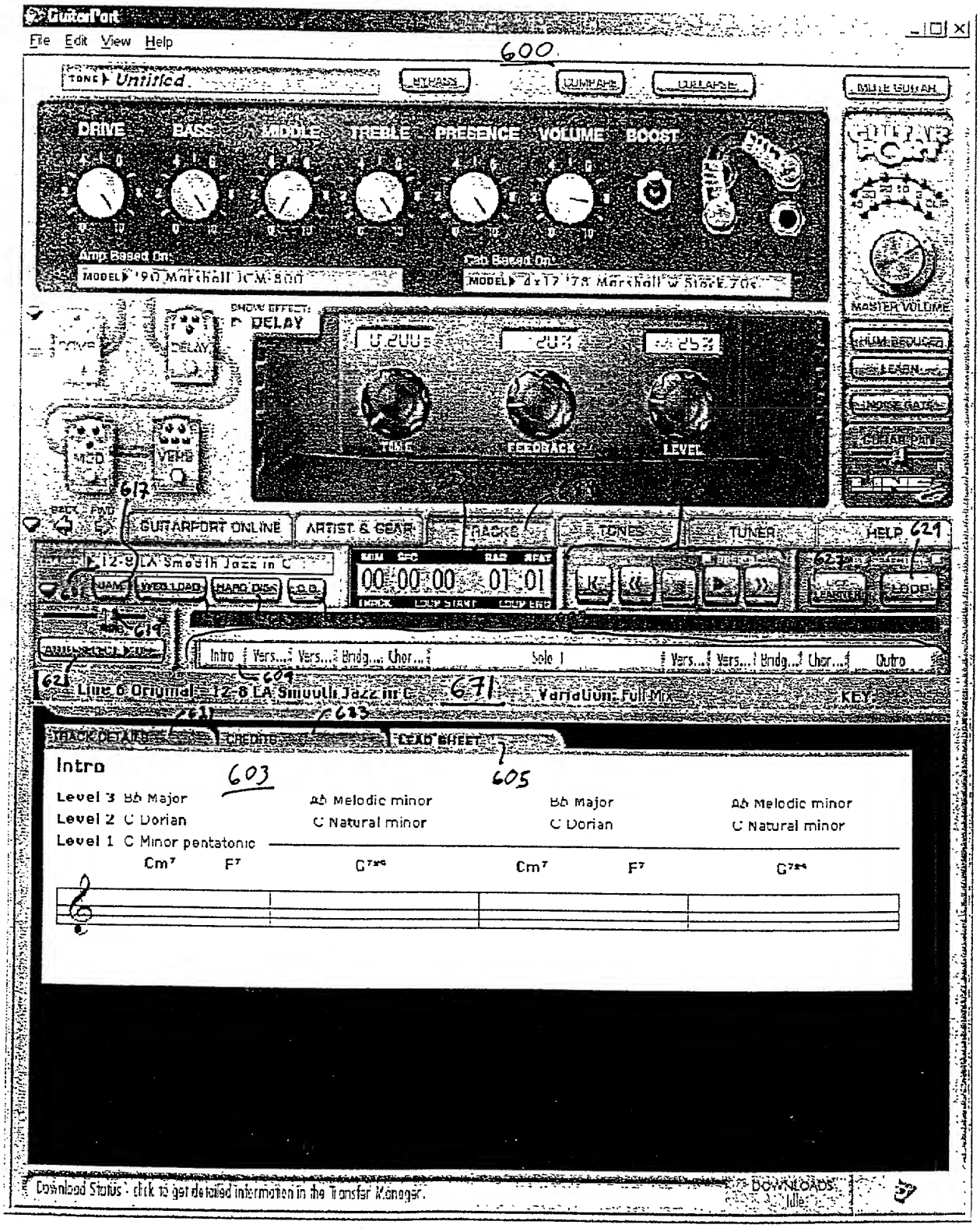

GuitarPort
File Edit View Help
600
TONE Untitled
BYPASS
COMPARE
DRIVE
BASS
MIDDLE
TREBLE
PRESENCE
VOLUME
BOOST
Amp Based On:
MODEL '90 Marshall JCM-800
Cab Based On:
MODEL 4x12 '78 Marshall 1960E 70s
MASTER VOLUME
NOISE GATE
DELAY
TONE
FEEDBACK
LEVEL
617
GUITARPORT ONLINE
ARTIST & GEAR
RACKS
TONES
TUNER
HELP
621
12-9 LA Smooth Jazz in C
00 00 00 01 01
Intro
Vers...
Vers...
Bridg...
Chor...
Solo
Vers...
Vers...
Bridg...
Chor...
Outro
621
Line 6 Original - 12-6 LA Smooth Jazz in C
671
Variation: Full Mix
KEY
TRACK DETAILS
CREDITS
LEAD SHEET
Intro
603
605
Level 3 B♭ Major
A♭ Melodic minor
B♭ Major
A♭ Melodic minor
Level 2 C Dorian
C Natural minor
C Dorian
C Natural minor
Level 1 C Minor pentatonic
Cm7
F7
G7#5
Cm7
F7
G7#5
Download Status - click to get detailed information in the Transfer Manager.
DOWNLOADS
Idle

Figure 6C

2067207 2E5086660

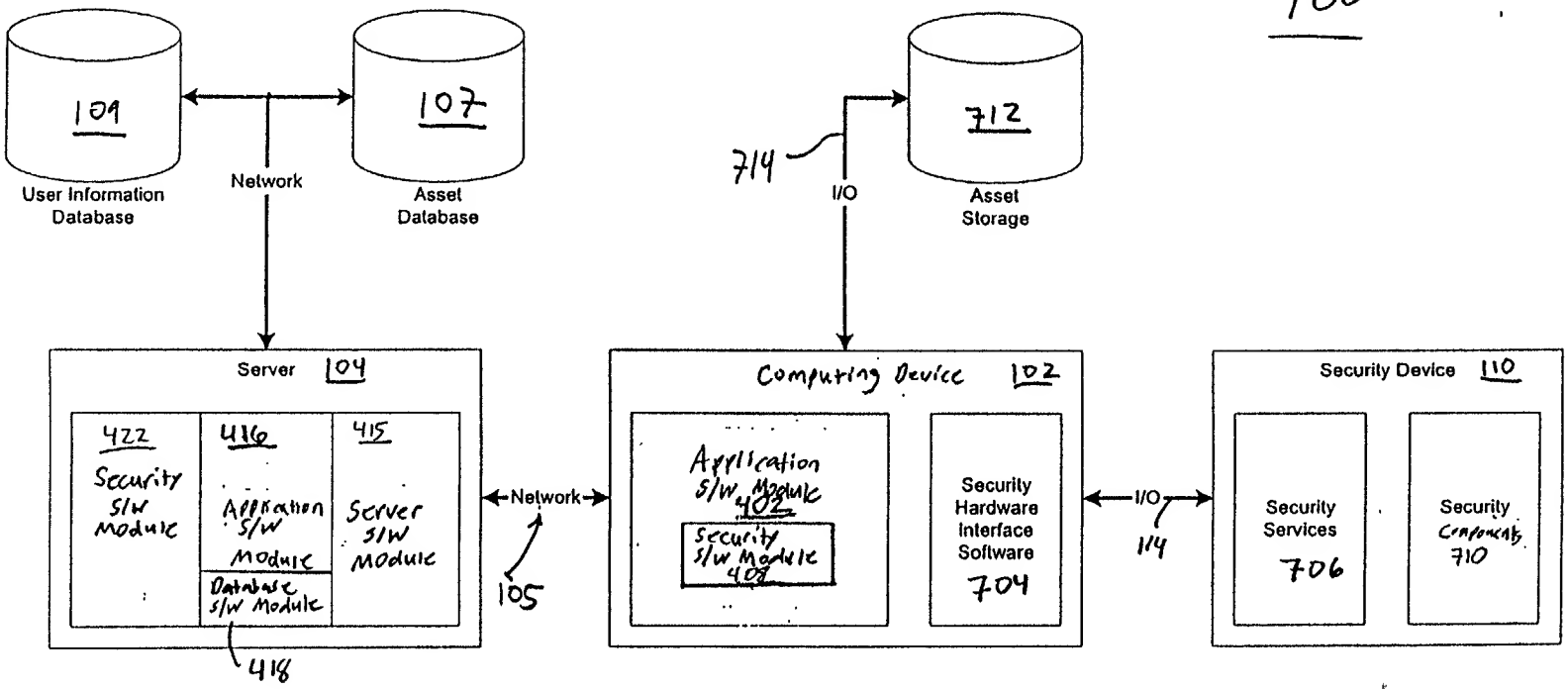


Figure 7a

COPY OF PAPERS ORIGINALLY FILED

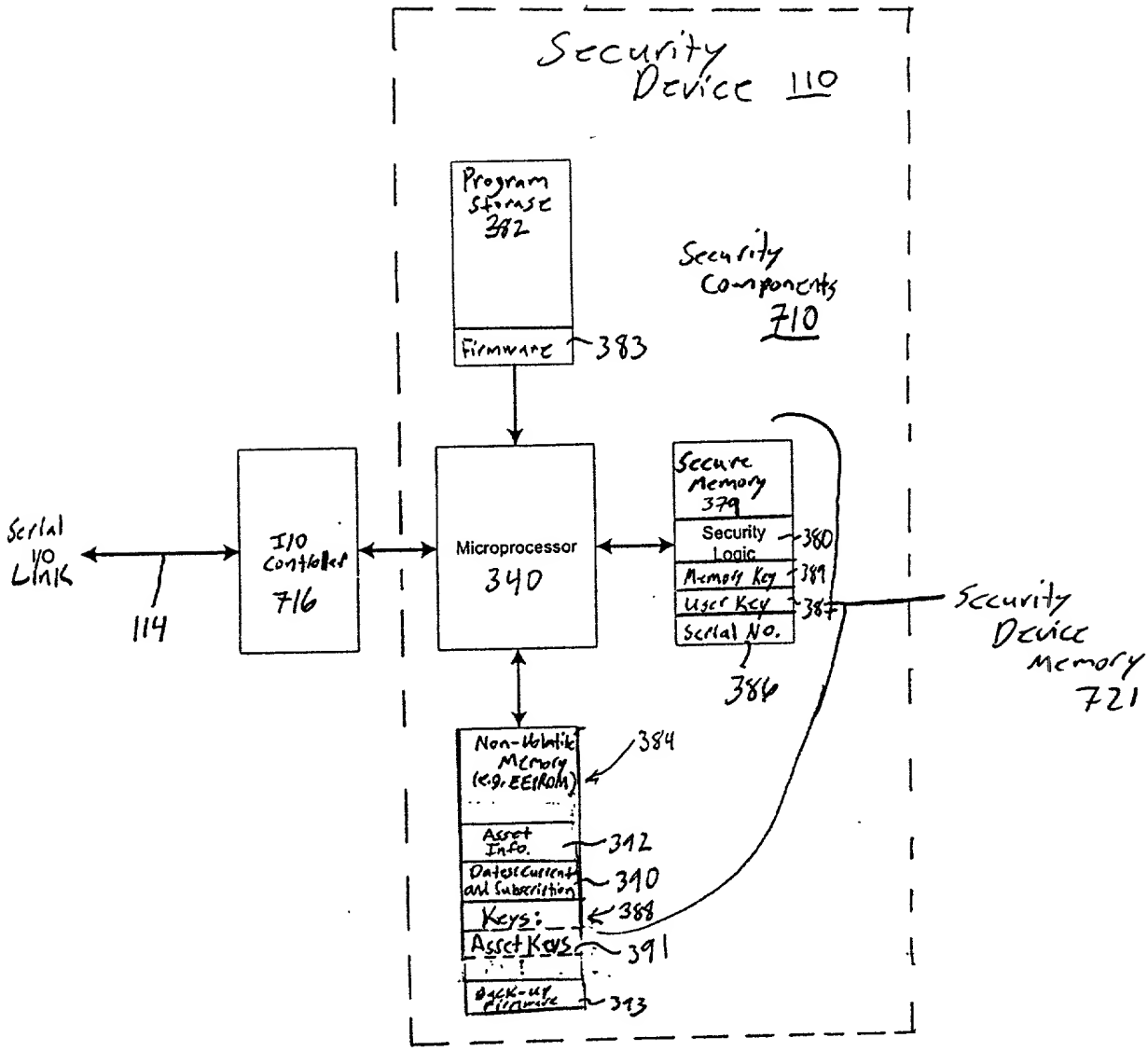


Figure 7b

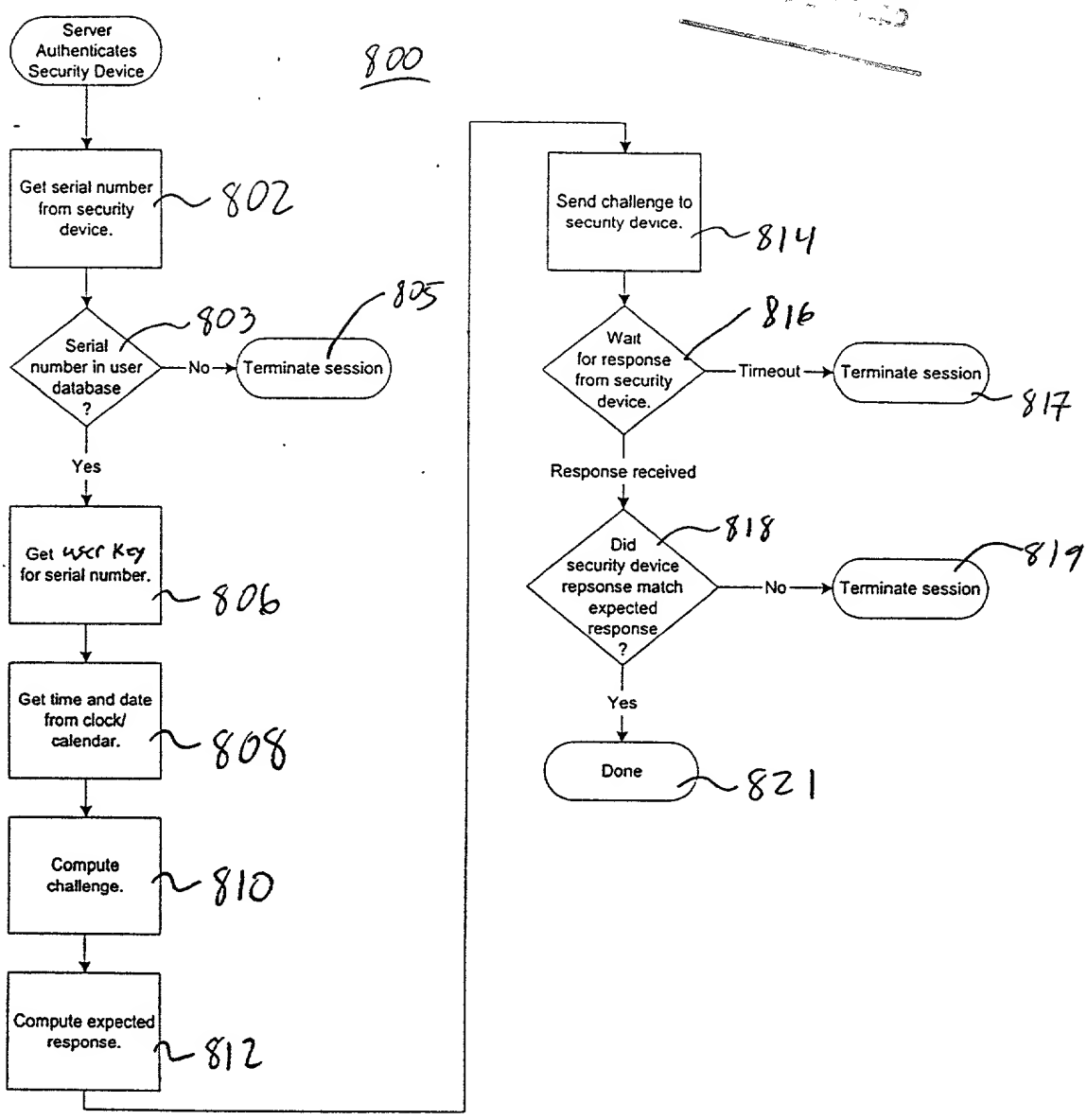

800
Server Authenticates Security Device
Get serial number from security device.
802
Serial number in user database ?
803
No
Terminate session
805
Yes
Get user Key for serial number.
806
Get time and date from clock/ calendar.
808
Compute challenge.
810
Compute expected response.
812
Send challenge to security device.
814
Wait for response from security device.
816
Timeout
Terminate session
817
Response received
Did security device repsonse match expected response ?
818
No
Terminate session
819
Yes
Done
821

Figure 8a

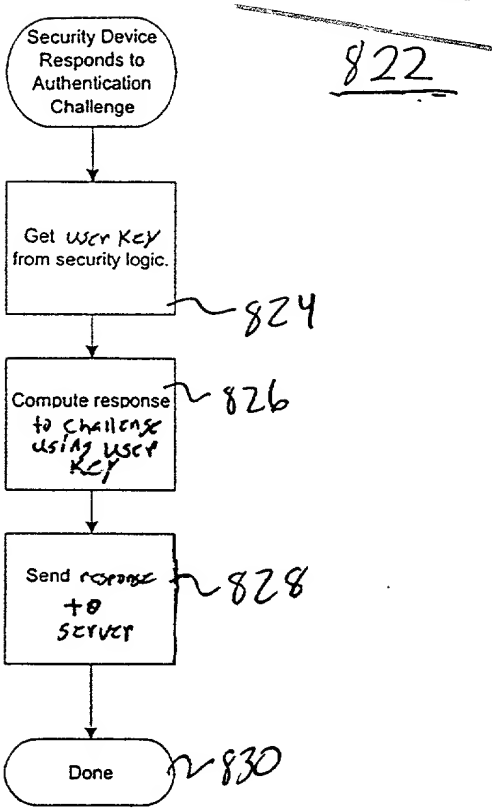

Security Device Responds to Authentication Challenge
822
Get User Key from security logic.
824
Compute response to challenge using User Key
826
Send response to server
828
Done
830

Figure 8b

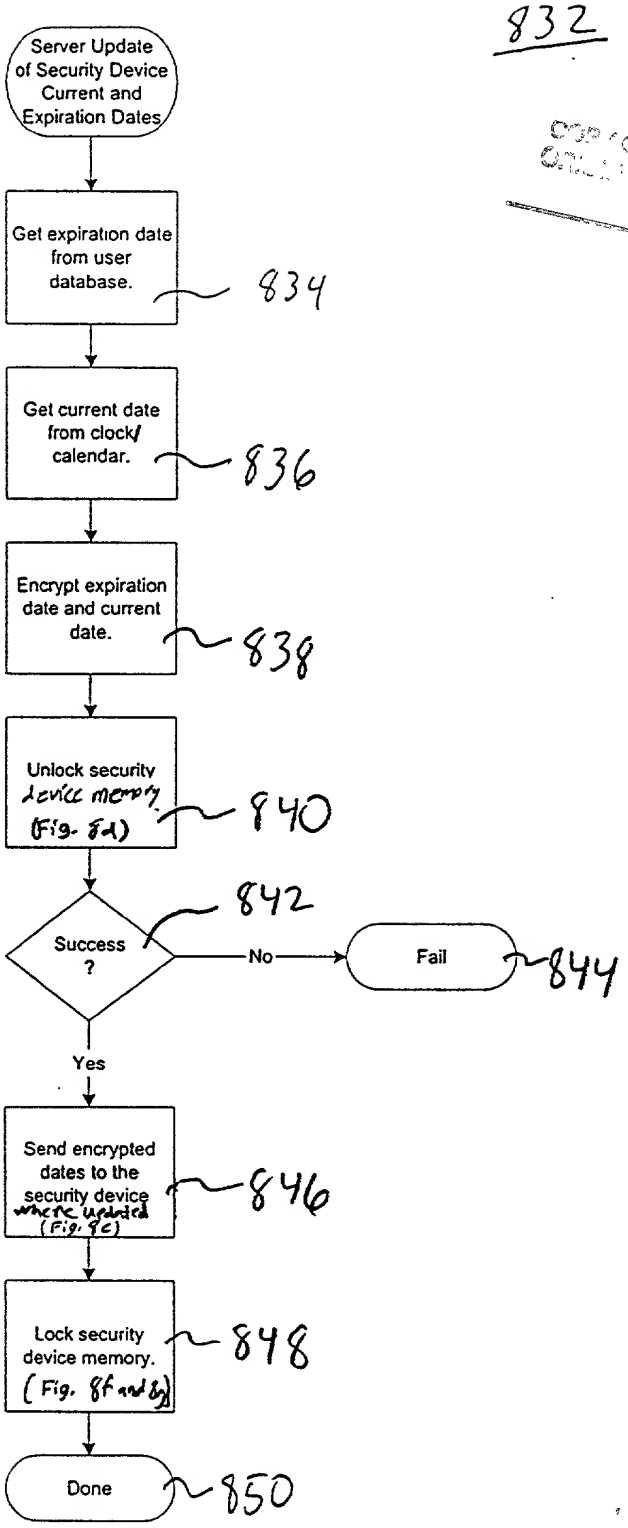

832
Server Update of Security Device Current and Expiration Dates
Get expiration date from user database.
834
Get current date from clock/ calendar.
836
Encrypt expiration date and current date.
838
Unlock security device memory. (Fig. 8d)
840
Success ?
842
No
Fail
844
Yes
Send encrypted dates to the security device where updated (Fig. 8e)
846
Lock security device memory. (Fig. 8f and 8g)
848
Done
850

Figure 8c

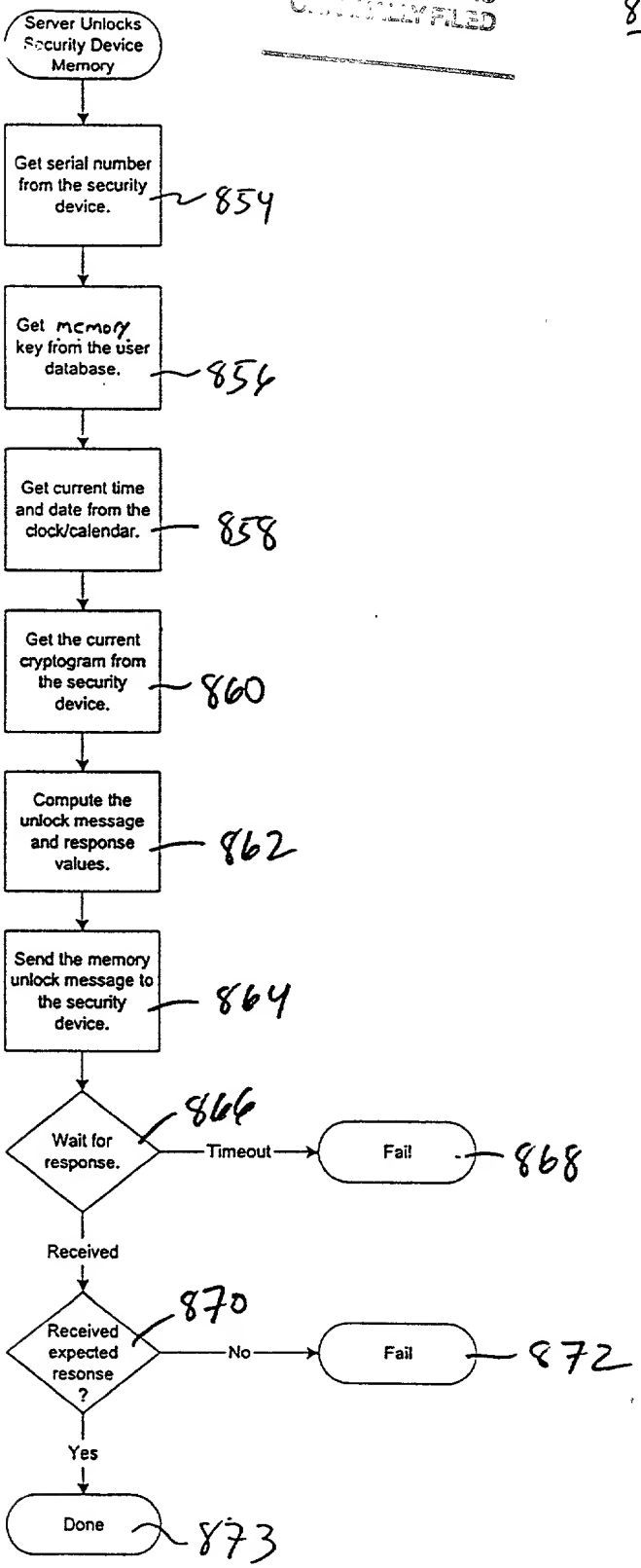

Server Unlocks Security Device Memory
852
Get serial number from the security device.
854
Get memory key from the user database.
856
Get current time and date from the clock/calendar.
858
Get the current cryptogram from the security device.
860
Compute the unlock message and response values.
862
Send the memory unlock message to the security device.
864
Wait for response.
866
Timeout
Fail
868
Received
Received expected resonse ?
870
No
Fail
872
Yes
Done
873

Figure 8d

UNITED STATES PATENT AND TRADEMARK OFFICE

874

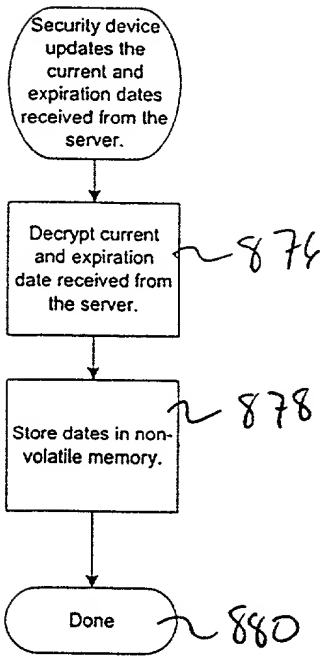


Figure 8e

...FILED

882

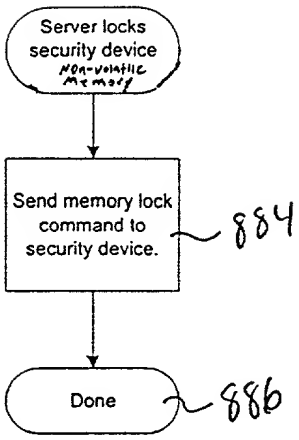


Figure 8f

888

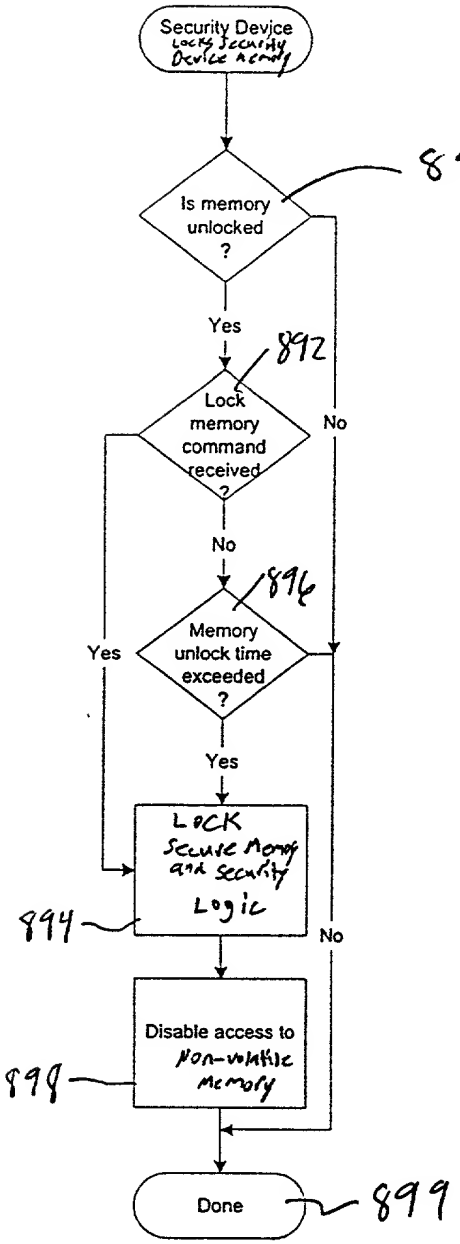


Figure 8s

EXPRESS MAIL

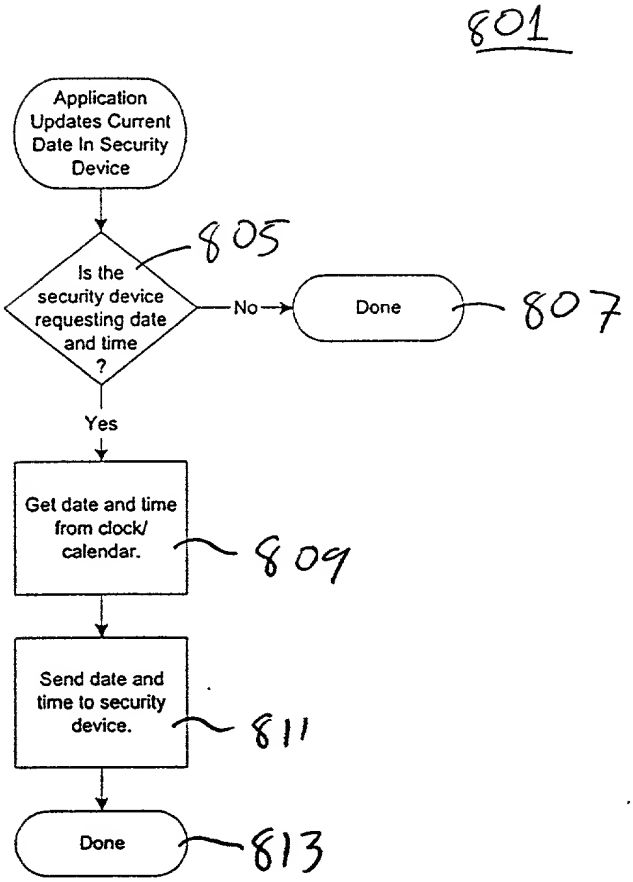


Figure 8h

...TERS
...FILED

815

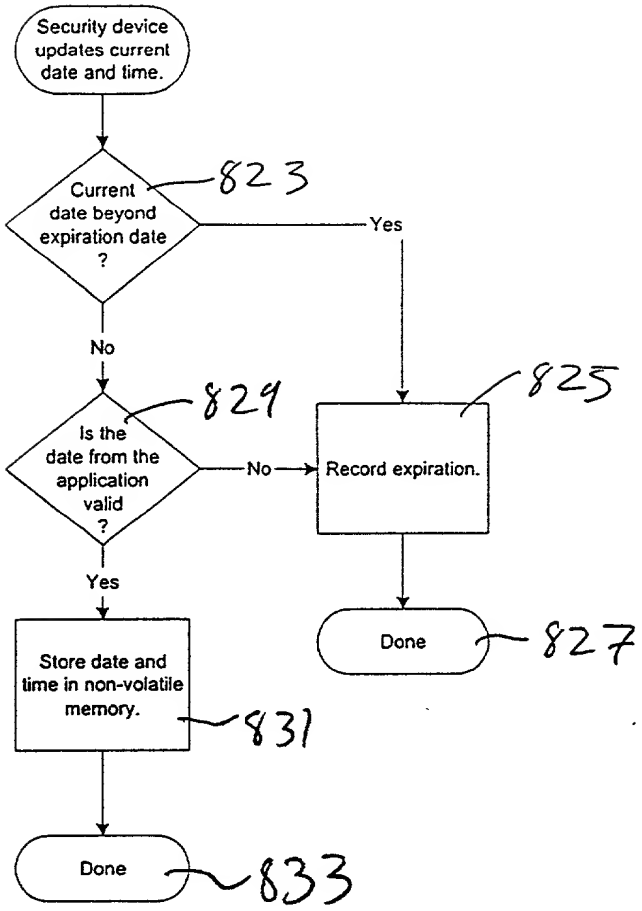


Figure 8'

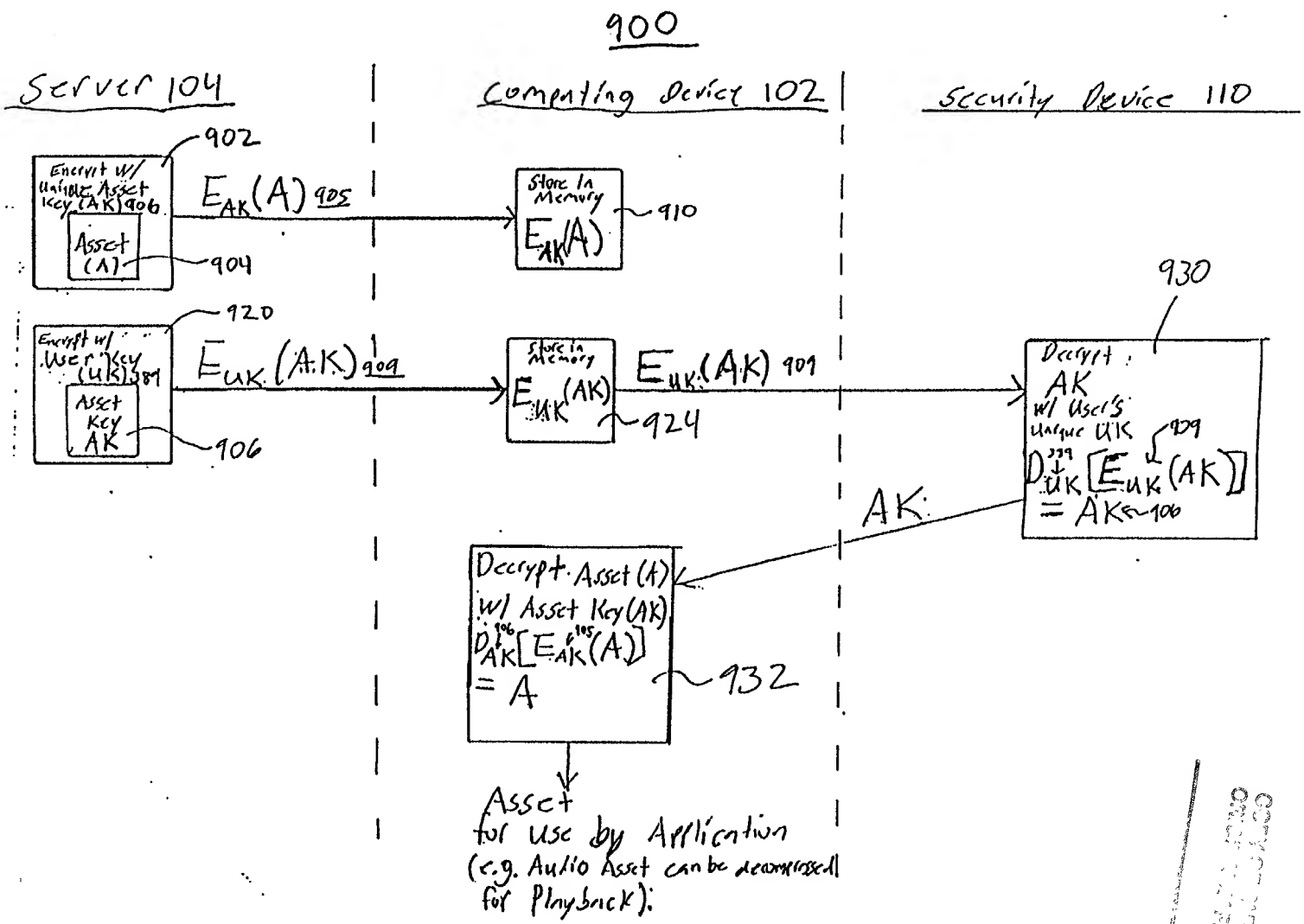

900
Server 104
Computing Device 102
Security Device 110
902
Encrypt w/ Unique Asset Key (AK) 906
Asset (A) 904
$E_{AK}(A)$ 905
Store in Memory
$E_{AK}(A)$ 910
920
Encrypt w/ User's Key (UK) 921
Asset Key AK 906
$E_{UK}(AK)$ 909
Store in Memory
$E_{UK}(AK)$ 924
$E_{UK}(AK)$ 909
930
Decrypt AK w/ User's Unique UK
$D_{UK}^{929}[E_{UK}(AK)]$
= AK 106
AK
Decrypt Asset (A) w/ Asset Key (AK)
$D_{AK}^{906}[E_{AK}^{905}(A)]$
= A
932
Asset for use by Application (e.g. Audio Asset can be decompressed for Playback).

Figure 9

EXPRESS MAIL
FILED

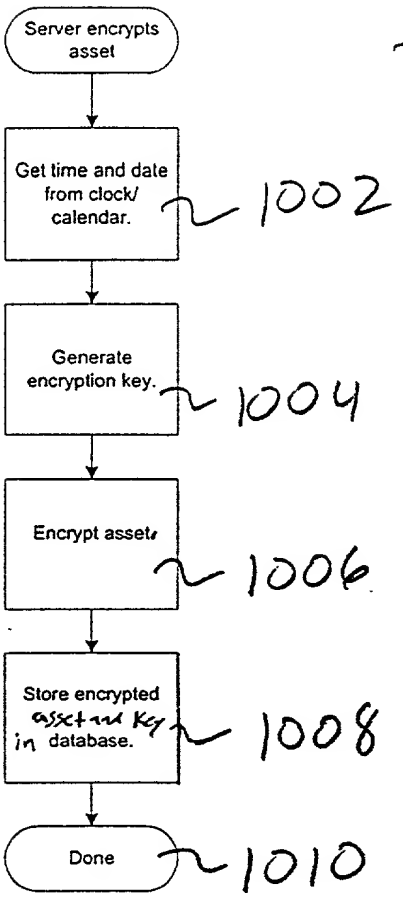


Figure 10a

COPY OF PAPERS ORIGINALLY FILED

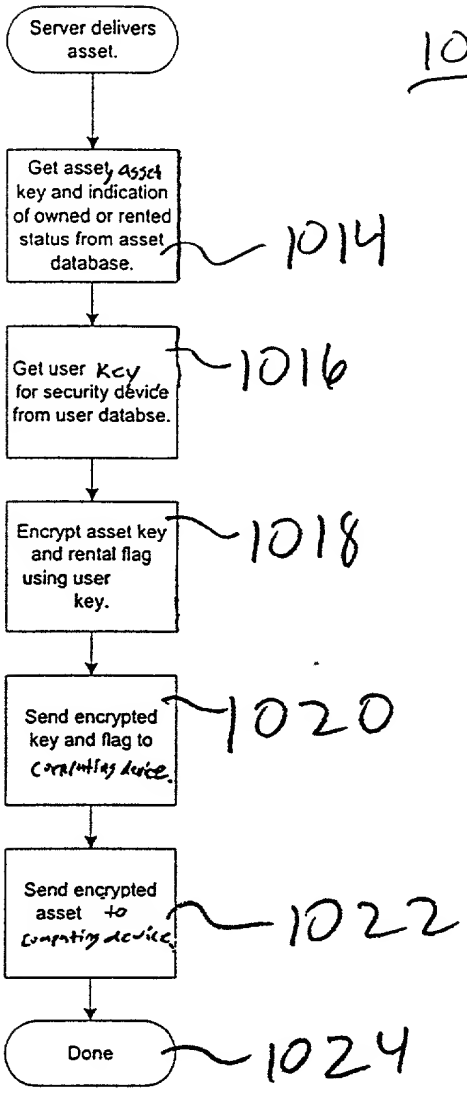


Figure 10b

...ERRORS
...ALLY FILED

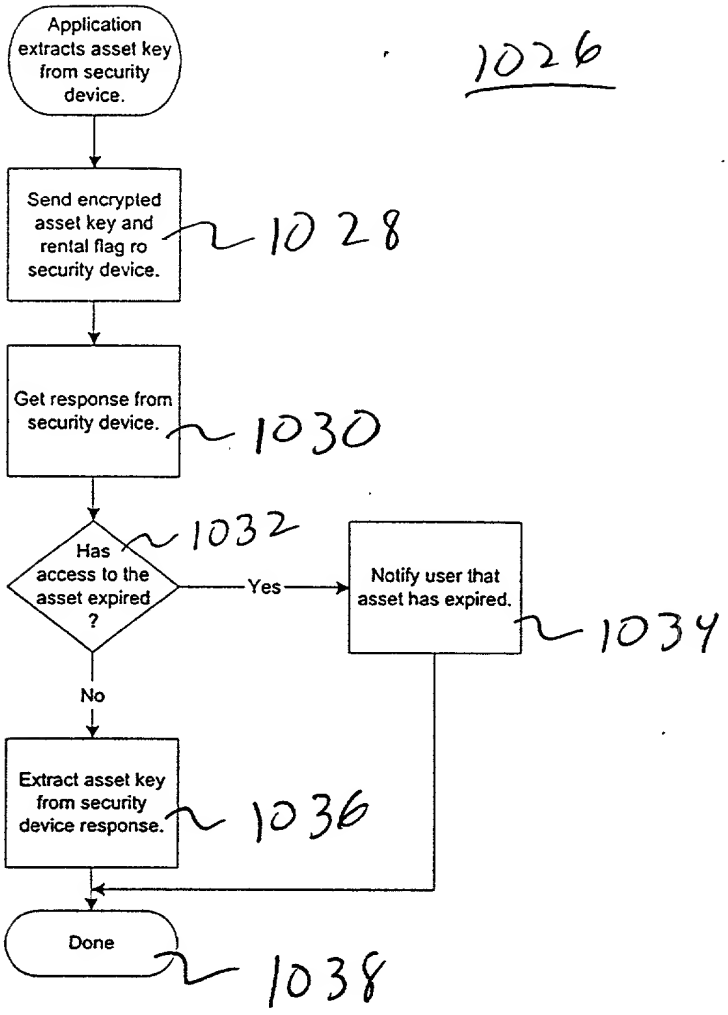
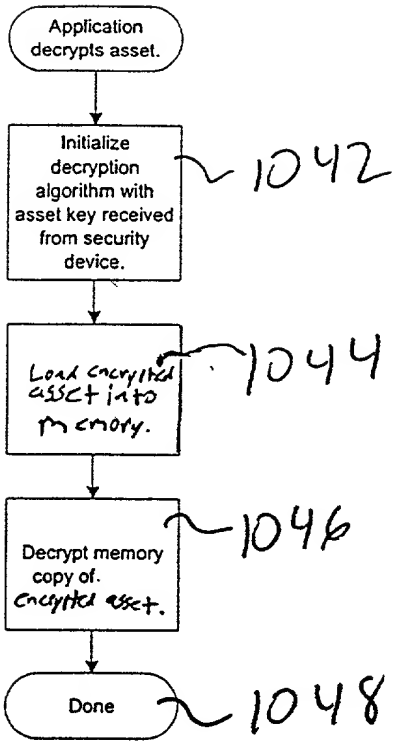


Figure 10c



COPYCATCHERS CANNOT BE FILED

Figure 10d

COPY OF PAPERS
ORIGINALLY FILED

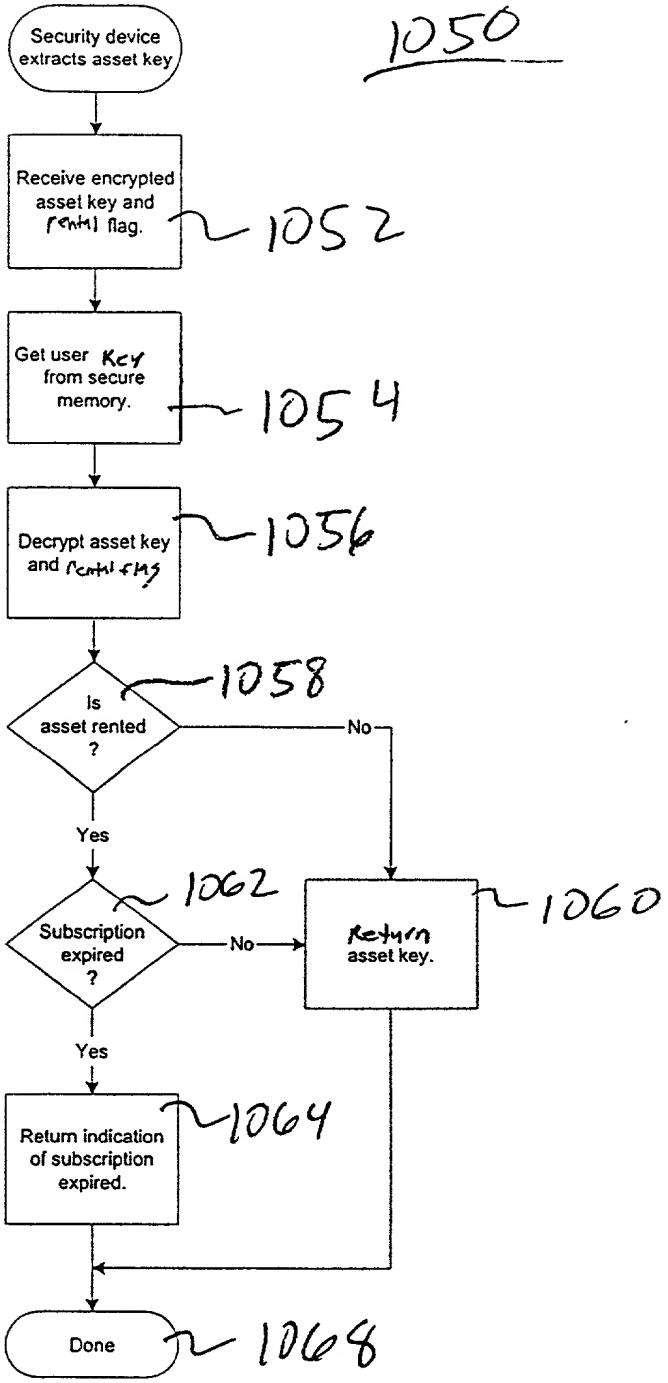


Figure 10c